KHOMENKO, A.I., kand. tekhn. nauk.

Electric methods of measuring acceleration. Trudy MIIT no.95:54-59 '58. (MIRA 11:12)
(Accelerometers) (Railroads--Train speed)

KHOMENKO, A.I., kand. tekhn. nauk

Current-tapping apparatus used for measuring stresses in moving parts with the aid of wire transducers. Trudy MIIT no.95:66-70 '58. (MIRA 11:12)

(Electric measurements)

KHOMENKO, A.I., dotsent, kand.tekhn.nauk

Choosing the necessary number of rectifiers for parallel operation.
Trudy MIIT no.117:58-65 '60. (MIRA 13:10)
(Electric current rectifiers)

BASHUK, I.B., kand.tekhn.nauk, dotsent; KHOMENKO, A.I., kand.tekhn.
nauk, dotsent

Contactless control of electric railroad motorcars. Elektrichestvo no.10:24-28 O '61. (MIRA 14:10)

1. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta.
(Railroad motorcars)

BASHUK, I.B., kand.tekhn.nauk, dotsent; KHOMENKO, A.I., kand.tekhn.nauk, dotsent

Contactless valve switch for the ER1 electric train. Elek.i tepl. tiaga 5 no.10:9-10 O '61. (MIRA 14:10)

1. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta. (Railroad motorcars)

SENZYUK, K.D.; BERLIN, S.S.; ASNER, B.G. [Asner, B.H.]; KUZ'MITSKIY, V.M. [Kuz'myts'kyi, V.M.]; ARSENT'YEV, Ye.D. [Arsent'iev, IE.D.]; SHIMANSKAYA, G.G. [Shymans'ka, H.H.]; PINSKIY, A.Ye. [Pyns'kyi, A.IE.]; KHOMENKO, A.I.; GAMPEL', A.O. [Hampel', A.O.]

Proposals of efficiency promoters. Leh.prom. no.4:46-52 '62. O-D (MIRA 16:5)

(Kiev--Knit goods industry--Technological innovations)
(Odessa--Knit goods industry--Technological innovations)
(Kiev--Cotton manufacture--Technological innovations)

KHOMENKO, A.K.

SAMSONOV, Maksim Timofeyevich; KUSHEV, L.G., otvetstvennyy redaktor; KHOMENKO, A.K., redaktor; VELICHKO, G.N., tekhnicheskiy redaktor.

[Geological prospecting in the Karaganda Coal Basin] Iz opyta geologorazvedochnykh rabot v Karagandinskom ugol'nom basseine. Alma-Ata, Izd-vo Akad.nauk Kazakhskoi SSR, 1957. 93 p. (MIRA 10:4)

1. Chlen-korrespondent Akademii nauk Kazakhskoy SSR (for Kushev).
(Karaganda Basin--Prospecting)

KHOMENKO, A.K. [Khomenko, O.K.]; TSYNKALOVSKAYA, S.N. [TSynkalovs'ka, S.M.]

Determination of thiol groups; conditions ensuring their quantitative oxidation to the disulfide stage. Ukr.biokhim.zhur. 34 no.6:888-896 '62. (MIRA 16:4)

1. Institute of Biochemistry of the Academy of Sciences of the Ukrainian S.S.R., Kiev.
(MERCAPTO GROUP) (OXIDATION)

L 35081-65

ACCESSION NR: AR5005398 S/0299/64/000/019/R021/R021

SOURCE: Ref. zh. Biologiya. Sv. t., Abs. 10R138

15

B+1

AUTHOR: Khomenko, A. K.

TITLE: Role of calcium ions and two highly reactive disulfide bonds of the fibrinogen molecule

CITED SOURCE: Sb. 1-ya Nauchn. konferentsiya molod. uchenykh biologov. Kiyev, AN USSR, 1964, 71-72

TOPIC TAGS: fibrinogen, calcium ion, disulfide bond, polypeptide chain, polymerization, cysteine

TRANSLATION: It has been established that Ca^{2+} participates in the formation of the specifically reactive center of fibrinogen; the calcium ions bring together the polypeptide chain sections essential for polymerization by means of a triple chelate bond. Ca^{2+} is largely responsible for the presence of fibrinogen alpha- and beta-microfractions. Of the 35 disulfide bonds in the fibrinogen molecule, two that are directly related to the polymerization

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L 35081-65

ACCESSION NR: AR5005398

process are highly reactive. After these bonds are broken by cysteine, coagulability disappears and reoxidation leads to complete restoration of polymerization. A hypothesis is advanced on the similarity of corresponding structural sections in fibrinogen and actin. F. Khodzhevanov

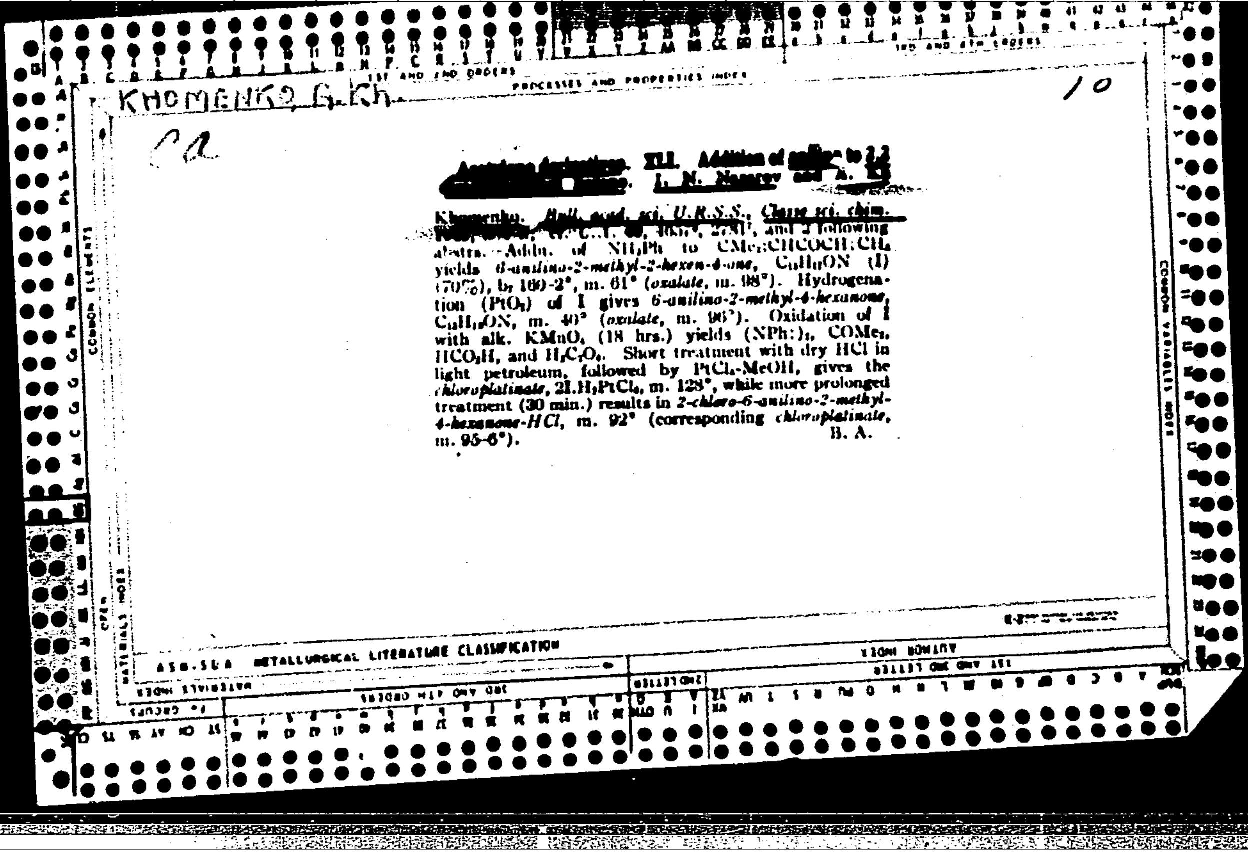
SUB CODE: LS ENCL: 00

Card 2/2

KHOMENKO, A.K. [Khomenko, O.K.]

Effect of bivalent cations on the microfractions of fibrinogen. Ukr. biokhim. zhur. 35 no.6:829-840 '63. (MIRA 18:7)

1. Institut biokhimii AN UkrSSR, Kiyev.


1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
COMMON ELEMENTS
METALLURGICAL LITERATURE CLASSIFICATION

KHOMENKO, A. Kh.

10

Ca

Acetylene derivatives. XLI. Addition of [illegible]. I. N. Nazarov and A. [illegible]

Khomenko. *Bull. acad. sci. U.R.S.S., Classe sci. chim.* [illegible] C.A. [illegible], and 2 following abstrs.—Addn. of NH_2Ph to $CMe_2:CHCOCH:CH_2$ yields *6-anilino-2-methyl-2-hexen-4-one*, $C_{13}H_{17}ON$ (I) (70%), b_7 160-2°, m. 61° (*oxalate*, m. 98°). Hydrogenation (PtO_2) of I gives *6-anilino-2-methyl-4-hexanone*, $C_{13}H_{19}ON$, m. 40° (*oxalate*, m. 96°). Oxidation of I with alk. $KMnO_4$ (18 hrs.) yields $(NPh:)_2$, $COMe_2$, HCO_2H, and $H_2C_2O_4$. Short treatment with dry HCl in light petroleum, followed by $PtCl_4$-MeOH, gives the *chloroplatinate*, 2I.H_2PtCl_6, m. 128°, while more prolonged treatment (30 min.) results in *2-chloro-6-anilino-2-methyl-4-hexanone-HCl*, m. 92° (corresponding *chloroplatinate*, m. 95-6°). B. A.

KHOMENKO, A. KH.

USSR/Chemistry - Organic Sulfur Compounds May/Jun 51

"Reaction of Isoamyl Mercaptan With Acetylene," A. Kh. Khomenko, Inst Org Chem, Acad Sci USSR

"Iz Ak Nauk SSSR, Otdel Khim Nauk," No 3, pp 280-283

Upon action of acetylene on potassium isoamyl mercaptide at 5-15 atm and 60-100°, vinylisoamyl sulfide, ethylene-bis-diisoamyl sulfide, and diisoamyl sulfide are formed.

183T10

KHOMENKO, A. KH.

PA 197T16

USSR/Chemistry - Tetramethylammonium Iodide Nov/Dec 51

"Action of Halogenated Compounds on Magnesium Nitride," A. Kh. Khomenko, Inst Org Chem, Acad Sci USSR

"Iz Ak Nauk SSSR, Otdel Khim Nauk" No 6, pp 806-808

Khomenko proposes method of prepg tetramethylammonium iodide by reacting methyl iodide with magnesium nitride. According to data obtained by him, the method cannot be extended to other alkyl halides, because the resulting quaternary ammonium

197T16

USSR/Chemistry - Tetramethylammonium Iodide (Contd) Nov/Dec 51

bases are too easily decompd by heat. When butyl bromide is reacted with magnesium nitride, the resulting butene polymerizes very easily under the conditions of the reaction.

197T16

α,α,α,ω-Tetrachloroalkanes. A. N. Nesmeyanov, R. Kh. Freidlina, L. I. Zakharkin, A. [illegible]
[illegible]
[illegible]
[illegible]
CCl4. To reduce [illegible]
out in a flow type reactor in the [illegible]
nitrile of diazo butyric acid [illegible]
decomp. at 50-100°. The reaction can [illegible] initiated by
ultraviolet irradiation at 20-40°. M. H[illegible]

Khomenko, A.Kh.

62-58-4-28/32

AUTHORS: Shostakovskiy, M. F., Khomenko, A. Kh.

TITLE: Letters to the Editor (Pis'ma redaktoru)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1958, Nr 4, p. 519 (USSR)

ABSTRACT: The formation of diacetylene on the action of alcoholic alkali on 1,4-dichlorobutyne-2 was found already long ago. The mechanism of this reaction remained, however, unclear. The authors found that in the interaction of the methanol solution of caustic potash with 1,4-dichlorobutyne-2 the latter(reacting in its isomeric form of 2,3-dichlorobutadiene--1,3) forms a number of products according to reaction conditions. The following compounds were synthetized: 1-methoxy-2,3-dichlorobutene-2, boiling point: 50° C(5 mm), d_4^{20} 1,2090; n_D^{20} 1,4910; 2-chlorobutene-1-in-3, boiling point: 63-65°C(760 mm); d_4^{20} 1,030; n_D^{20} 1,4720; 2-chloro-4-methoxy-

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62-58-4-28/32

Letters to the Editor

butadiene-1, boiling point: 50°C(8 mm); d_4^{20} 1,2179; n_D^{20} 1,4680; 2-chloro-4,4-dimethoxybutene-1,boiling point: 66°C(22 mm); d_4^{20} 1,0262; n_D^{20} 1,4535; diacetylene, melting point: -36°C;boiling point: 10°C;4-methoxybutene-3-in-1, boiling point: 50°C(50 mm); d_4^{20} 1,9113; n_D^{20} 1,4770;boiling point 56°C (50 mm); d_4^{20} 0,8987; n_D^{20} 1,4820 and 1,1-dimethoxy--2-butin, boiling point:52-53°C(12 mm); d_4^{20} 0,9577; n_D^{20} 1,4359 (see formulae I to VIII).

Card 2/3

Letters to the Editor 62-58-4-28/32

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR(Institute for Organic Chemistry imeni N. D. Zelinskiy, AS USSR)

SUBMITTED: January 17, 1958

AVAILABLE: Library of Congress

1. Cyclic compounds--Synthesis

Card 3/3

5(3)

AUTHORS: Khomenko, A. Kh., Gorban', A. K. SOV/62-59-9-30/40

TITLE: Synthesis of Butyl Ethinylvinyl Ether and Tetrolaldehyde Dibutyl Acetal by Reaction of Sodium Butylate With 1,4-Dichlorobutine-2

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 9, pp 1676-1677 (USSR)

ABSTRACT: Together with Shostakovskiy the authors developed a method for the preparation of methyl ethinylvinyl ether by the treatment of 1,4-dichlorobutine with a KOH-methanol solution, described in a previous paper (Ref 1). By the same method butyl ethinylvinyl ether was now prepared, using sodium butylate and 1,4-dichlorobutine-2. The reaction proceeds at 90-95° and is completed within 1 hr. On further heating another butanol molecule adds on, giving tetrolaldehyde dibutyl acetal. The reactions are described in the experimental part of the paper. There are 7 references, 4 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: February 25, 1959

Card 1/1

S/062/60/000/006/020/025/XX
B020/B060

AUTHORS: Shostakovskiy, M. F., Khomenko, A. Kh.

TITLE: Acetylene-diene Isomerization of 1,4-Dichloro Butane-2 and Syntheses Performed on Its Basis. Communication 1. Action of Water-methanol- and Methanol Solutions of Potassium Hydroxide on 1,4-Dichloro Butyne-2

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 6, pp. 1098-1103

TEXT: The authors oxidized 1,4-dichloro butyne-2 with permanganate and obtained monochloroacetic acid as the only reaction product. Proceeding from the assumption that in the dehydrochlorination of 1,4-dichloro butyne-2 by means of an alcoholic KOH solution the separation of hydrogen chloride from one and the same carbon atom is improbable, the attempt was made to prove the course of an isomerization on the basis of the reaction products. From among the compounds produced by the reaction mentioned in the title, the following were identified and described: 2-chloro-buten-1-

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Acetylene-diene Isomerization of
1,4-Dichloro Butane-2 and Syntheses
Performed on Its Basis. Communication 1.
Action of Water-methanol- and Methanol
Solutions of Potassium Hydroxide on 1,4-
Dichloro Butyne-2

S/062/60/000/006/020/025/XX
B020/B060

✓

ine-3 (IV), 2-chloro-4-methoxy butadiene-1,3 (V), diacetylene (VI), ethyl-vinyl-methyl ester (VII), and dimethyl acetal of tetrolaldehyde (VIII), the formation of which from 1,4-dichloro butyne-2 can be explained by isomerization to 2,3-dichloro butadiene-1,3 (III) over 3,4-dichloro butadiene-1,2 (II). The conditions are stated under which the individual products are obtained. If 1.5 mole of water-methanol KOH solution are added to a 1-mole methanol solution of 1,4-dichloro butyne-2 from a dropping funnel at 58 - 60°C, compound IV can be separated, besides diacetylene, after a brief reaction time. If an about 2-mole methanol KOH solution is added to the same amount of 1,4-dichloro butyne-2, without feeding nitrogen, compound (V) can then be separated from the reaction products. When a larger amount of hydroxide is used at a temperature of 65°C, compounds (VII) and (VI) are obtained in the first place. Compound (VIII) is obtained under more rigorous reaction conditions. The addition of

Card 2/4

Acetylene-diene Isomerization of 1,4-Dichloro Butane-2 and Syntheses Performed on Its Basis. Communication 1. Action of Water-methanol- and Methanol Solutions of Potassium Hydroxide on 1,4-Dichloro Butyne-2

S/062/60/000/006/020/025/XX
B020/B060

methanol to 1,4-dichloro butyne-2 (I) in the presence of KOH at a temperature below 50°C was likewise observed. When an aqueous KOH solution is added to a methanol solution of (I) at about 65°C, diacetylene is obtained as the main product. The structure of the resulting 2-chlorobuten-1-ine-3 was confirmed by the spectroscopic analysis made by Lopatin. A description is given of the methods applied to confirm the structure of the remaining isolated compounds. Production, characteristic reactions, and identification of compounds (I) to (VIII) are also discussed. On the strength of results obtained, a mechanism of acetylene-allene-diene isomerization of 1,4-dichloro butyne-2 in water-methanol- and methanol KOH solution is suggested. V. R. Skvarchenko (Ref. 7), Yu. S. Zalkind, and M. L. Ayzikovich (Ref. 9), as well as V. I. Yegorova and O. M. Kuznetsova (Ref. 10) are mentioned. There are 13 references: 8 Soviet, 4 German, and 1 British.

✓

Card 3/4

Acetylene-diene Isomerization of 1,4-Dichloro Butane-2 and Syntheses Performed on Its Basis. Communication 1. Action of Water-methanol- and Methanol Solutions of Potassium Hydroxide on 1,4-Dichloro Butyne-2

S/062/60/000/006/020/025/XX
B020/B060

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: November 18, 1958

Card 4/4

SHORYGIN, P.P.; ROSHCHUPKIN, V.P.; KHOMENKO, A.Kh.

Regularities in the mutual influence of atomic groups adjoinging the methylene bridge. Dokl. AN SSSR 159 no.2:391-394 N '64. (MIRA 17:12)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR. Predstavleno akademikom A.N. Nesmeyanovym.

POPOV, Ye.M.; KHOMENKO, A.Kh.; SHORYGIN, P.P.

Splitting of the vibration frequencies of multiple bonds of symmetrical molecules. Izv. AN SSSR Ser. khim. no.1:51-58 '65. (MIRA 18:2)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

KHOMENKO, A.Kh.

Better communications for rural workers. Vest. sviazi
21 no.8:15-17 Ag '61. (MIRA 14:9)

1. Ministr svyazi Moldavskoy SSR.
(Telecommunication)

KRIVENTSOV, M.I.; PETRENKO, M.V.; KHOMENKO, A.N.

Comparison of the accuracy of basic methods of forecasting the water salinity of reservoirs. Gidrokhim. mat. 37:49-55 '64. (MIRA 18:4)

1. Gidrokhimicheskiy institut Glavnogo upravleniya gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR, Novocherkassk.

INGERBAYEV, Ya., dorozhnyy master; SABUROV, V.G., dorozhnyy master; KHOMENKO, A.Ye., inzh.-mekhanik; PETROV, V.S., master po ekspluatatsii mashin; MELIKHOV, M.V., starshiy dorozhnyy master; MEDVEDEV, N.A., starshiy dorozhnyy master

Letters to the editors. Put' i put.khoz. 9 no.6:36 '65. (MIRA 18:6)

1. Stantsiya Chelkar, Kazakhskoy dorogi (for Ingerbayev).
2. Stantsiya Berdyaush, Yuzhno-Ural'skoy dorogi (for Saburov).
3. Stantsiya Shors, Yugo-Zapadnoy dorogi (for Khomenko).
4. Stantsiya Konosha II, Severnoy dorogi (for Petrov). 5. Stantsiya
Astrakhan' I, Privolzhskoy dorogi (for Melikhov, Medvedev).

KHOMENKO, B.F.; KARAVASHKIN, S.I., red.

[Development of the lumbering industry in Perm Province; a review] Razvitie lesnoi promyshlennosti Permskoi oblasti; obzor. Moskva, TSentr. nauchno-issl. in-t informatsii i tekhniko-ekon. issl. po lesnoi, tselliulozno-bumazhnoi, derevoobrabatyvaiushchei promyshl. i lesnomu khoz., 1963. 11 p.
(MIRA 17:10)

LOZANOVSKIY, A.L., inzh.; KHOMENKO, B.I., inzh.

Nonsteady current modes in the power circuit of an operating VL60 electric locomotive. Elektrotekhnika 35 no.12:20-23 D '64. (MIRA 18:4)

SAPANKEVICH, P.V.; MAKSIMOVA, N.A.; KHOMENKO, B.P.

Effect of aqueous extracts from the rhyzomes of Bermuda grass on the germination of some crop plant seeds and the growth of their rootlets. Agrobiologiia no.6:915-916 N-D '65.
(MIRA 18:12)

1. Uchebnoye khozyaystvo "Kommunar" Krymskogo sel'skokhozyaystvennogo instituta imeni M.I.Kalinina.

KAVUN, Vasiliy Mikhaylovich; KHOMENKO, B.V., red.

[Twenty-six centners of buckwheat per hectare] 26 tsentneriv hrechky z hektara. Vinnytsia, Vinnyts'ke oblasne knyzhkovo-gazente vyd-vo, 1961. 21 p. (MIRA 15:7)

1. Predsedatel' kolkhoza im. Stalina Bershadskogo rayona (for Kavun).

(Ukraine—Buckwheat)

KHOMENKO, D.G.

Oxygen therapy in thyrotoxicosis. Vrach. delo no.10:109-113 O '61.
(MIRA 14:12)

1. Khirurgicheskoye otdeleniye (nauchnyy rukovoditel' - prof. I.G. Turovets) klinicheskoy bol'nitsy Leninskogo rayona g. Kiyeva.
(THYROID GLAND--DISEASES) (OXYGEN THERAPY)

KHOMENKO, D.G. (Kiyev)

Oxygen consumption in patients with thyrotoxicosis and the effect of oxygen therapy. Vrach. delo no.6:125-126 Je'63.
(MIRA 16:9)

1. Khirurgicheskoye otdeleniye (nauchnyy rukovoditel' -prof. I.G.Turovets) Kiyevskoy klinicheskoy bol'nitsy Leninskogo rayona.

(THYROID GLAND — DISEASES)
(OXYGEN THERAPY)

KHOMENKO, D.P.

The disassembling machine. Put' i put.khoz. 7 no.4:14 '63. (MIRA 16:3)

1. Nachal'nik otdela ispytaniy mashin Opytnoy putevoy mashinnoy stantsii No.1, st. Reshetnikovo, Oktyabr'skoy dorogi.
(Railroads--Equipment and supplies)

KHOMENKO, D.P., inzh.

What kind of spare rail supply per kilometer for continuous tracks?
Put' i put.khoz. 7 no.7:44 '63. (MIRA 16:10)

1. Stantsiya Reshetnikovo, Oktyabr'skoy dorogi.

KALINImeans, V.G., inzh.; KHOMENKO, D.P., inzh.

Convenient device. Put' i put.khoz. 9 no.4:40 '65.

(MIRA 18:5)

1. Stantsiya Reshetnikovo, Oktyabr'skoy dorogi.

KHOMENKO, F., inzh.

In two stages. Grazhd.av. 18 no.9:11 S '61. (MIRA 14:9)
(Airplanes--Maintenance and repair)

Khomenko, F.V.

PHASE I BOOK EXPLOITATION SOV/3782

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Sverdlovskoye otdeleniye

Mekhanizatsiya i avtomatizatsiya mashinostroitel'nogo proizvodstva [illegible] ation and Automation in the Machine-Building Industry) [illegible] 1959. 519 p. 12,000 copies printed.

Ed.: Ya. V. Pal'mov, Doctor of Technical Sciences; Tech. Ed.: [illegible] Editorial Board: P. P. Vakhrushev, Engineer, V. V. [illegible] Technical Sciences, Ya. V. Pal'mov, Doctor of Technical [illegible] Porochikov, Candidate of Technical Sciences, V. V. [illegible] Technical Sciences, K. N. Sokolov, Candidate of Technical [illegible] Sokolovskiy, Candidate of Technical Sciences, N. I. [illegible] B. K. Shumayev, Candidate of Technical Sciences, and P. V. [illegible] sor.

PURPOSE: This book is intended for production engineers and persons [illegible] in industrial planning.

COVERAGE: The material presented in this book is said to be [illegible] developed and tested in the machine-building plants of the [illegible] of Siberia. Listed are various methods of mechanization [illegible] and their applications in foundries, forging shops, and [illegible]. Other fields of use include welding, hoisting, conveying, [illegible], and quality control on an industrial scale. Various mechanisms, devices, tools, and instruments currently used in mechanization and automation of these industrial processes are described and illustrated. The equipment mentioned is said to have been produced by the plants using their own resources. The economic aspects of mechanization and automation are discussed. There are 454 Soviet references.

6. Continuous and Semicontinuous Pouring Into Moulds (Berdichevskiy, F.D., Engineer, M. B. Kayats, Engineer, and A. D. Popov, Candidate of Technical Sciences) 59
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4. Automatic and Semiautomatic Dies [with automatic feed and ejection] (Baitseev, B.V., Candidate of Technical Sciences and N.V. Potakushin, Engineer) 166
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(23)

ACC NR: AP7004962 (A) SOURCE CODE: UR/0048/66/030/009/1430/1432

AUTHOR: Krasnoperov, V.A.; Mironov, I.A.; Khomenok, G.A.

ORG: State Institute of Applied Chemistry (Gosudarstvennyy institut prikladnoy khimii)

TITLE: Investigation of the properties of luminescent aluminum nitride /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 16-23 Sept. 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 9, 1966, 1430-1432

TOPIC TAGS: luminescence, aluminum nitride, photoluminescence, cathodoluminescence, electroluminescence

ABSTRACT: The authors investigated the photoluminescence, cathodoluminescence, and electroluminescence of chromium, manganese, samarium, and europium doped aluminum nitride powders synthesized from the elements and either containing or not containing a donor (sulfur) or an acceptor (zinc). The presence of sulfur decreased the electrical resistance of the specimens, while the presence of zinc increased it. As regards photoluminescence, the specimens separated into two groups, depending on whether the activator was manganese or chromium (group "a"), or samarium or europium (group b). Photoluminescence was excited in the type "a" phosphors by ultraviolet radiation with wavelengths shorter than the 280 mμ absorption edge and there was a

Card 1/2

ACC NR: AP7004962

prolonged afterglow, the luminescence intensity dropping to 3% of its initial value only after several minutes. The presence of zinc or sulfur did not affect the luminescence. Photoluminescence was excited in the type "b" specimens by radiation with wavelengths ranging from 260 to 400 mμ, and the duration of the afterglow was less than 0.1 sec. The presence of Zn did not affect the photoluminescence of AlN:Sm, and the presence of sulfur quenched it. The cathodoluminescence of all the specimens exhibited a characteristic band peaking at 380-400 mμ. Electroluminescence was excited by fields of the order of 10^4 V/cm in a cell equipped with brass and conducting glass electrodes. No luminescence appeared when the field was first applied, but if the glass electrode was negative and the polarity was suddenly reversed there appeared a flash with a duration of no longer than 1 sec. The flashes produced by subsequent field reversals decreased in intensity, and no electroluminescence was observed in alternating fields with frequencies of 20 Hz or higher. The brightest electroluminescence was obtained with an AlN:Eu:Zn:S specimen; its spectrum exhibited the two bands characteristic of the photoluminescence of AlN:Eu (narrow bands at 380 mμ and 357 mμ) and a broad band in the 270-300 mμ region. After a brief discussion of the possible mechanisms giving rise to the electroluminescence it is concluded that further experimental work is required. Orig. art. has: 3 figures.

SUB CODE: 20 SUBM DATE: none ORIG. REF: 000 OTH REF: 005

Card 2/2

PYATNITSKIY, I.V.; KHOMENKO, G.A.

Composition of malonic acid complexes of copper and iron (111) in an alkaline medium determined by the extraction method. Ukr. khim. zhur. 29 no.7:685-689 '63. (MIRA 16:8)

1. Kiyevskiy gosudarstvennyy universitet im. T.G. Shevchenko.
(Copper compounds) (Iron compounds)
(Malonic acid)

PYATNITSKIY, I.V.; KHOMENKO, G.A.

Use of malic acid for masking the precipitation reactions of metal hydroxides and metal hydroxyquinolinates. Ukr. khim. zhur. 29 no.8:854-856 '63. (MIRA 16:11)

1. Kiyevskiy gosudarstvennyy universitet im. T.G. Shevchenko.

MOROZKIN, N.I., prof., otv. red.; PADALKA, B.Ya., prof., red.; KHOMENKO, G.I., prof., red.; UGRYUMOV, B.L., doktor med. nauk, red.; FEDULOVA, Ye.G., kand. med. nauk, red. RICHENKO, N.I., red.; CHUCHUPAK, V.D., tekhn. red.

[Infectious hepatitis; collection of scientific works] Infektsionnyi gepatit; sbornik nauchnykh rabot. Kiev, Gosmedizdat USSR, 1961. 305 p. (MIRA 15:7)

1. Akademiya meditsinskikh nauk SSSR, Moscow. Institut infektsionnykh boleznei AMN SSSR. 2. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Morozkin).
(HEPATITIS, INFECTIOUS)

KHOMENKO, G.I., prof.; MITCHENKO, I.K., dotsent; SLOBODYANYUK, M.I.;
OSEDKO, N.A.

Modern therapy for infectious hepatitis. Vrach. delo no.2:
105-109 F'64 (MIRA 17:4)

1. Kafedra infektsionnykh bolezney (zav. - prof. G.I.Khomenko)
Kiyevskogo instituta usovershenstvovaniya vrachey.

SELIVANOV, A.I., red.; GNEUSHEV, V.N., inzh., retsenzent; KHOMENKO, G.P., inzh., retsenzent

[Album of technological charts for a continuous repair of the KDM-46 and KDM-100 engines in specialized plants] Al'bom tekhnologicheskikh kart dlia potochnogo remonta dvigatelei KDM-46 i KDM-100 na spetsializirovannykh predpriiatiiakh. Moskva, Mashinostroenie, 1964. 282 p. (MIRA 18:12)

1. Perovo. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii mashinno-traktornogo parka.

KURILENKO, I.S., kand.med.nauk; KHOMENKO, G.R. (Moskva)

Result of ultrasonic therapy of diseases of the peripheral nervous system and locomotor system. Klin.med. 39 no.4:123-127 '61. (MIRA 14:4)

(ULTRASONIC WAVES—THERAPEUTIC USE) (NERVES, PERIPHERAL) (EXTREMITIES (ANATOMY))

ACC NR: AP7007077

SOURCE CODE: UR/0048/66/030/010/1602/1603

AUTHOR: Denikayev, R. Z.; Yemel'yanov, Yu. A.; Lukin, Yu. T.; Takibayev, Zh. S.; Khomenko, G. S.

ORG: none

TITLE: Probability of the recording of "Stars" by an ionization calorimeter /Paper presented at the All-Union Conference on Cosmic Radiation Physics, Moscow, 15-20 Nov 1965/

SOURCE: AN SSSR. Izvestiya. Seriyz fizicheskaya, v. 30, no. 10, 1966, 1602-1603

TOPIC TAGS: calorimeter, astrophysics, star, neutron, proton, alpha particle, deuteron

SUB CODE: 08

ABSTRACT: Upon interaction of nucleus-reactive particles with matter, there is not only formation of new particles but also fission of nuclei of the target, which is accompanied by the emission of low-energy neutrons, protons, deuterons, and α- particles: i. e., formation of so-called "starts." The ionization produced by strongly ionizing particles of the stars is added to that due to electrons of the shower and measured, together with the latter, in an ionization calorimeter. On the basis of experimental data obtained on an instrument of the ionization calorimeter type, in which iron was used as an absorber, the contribution of stars to ionization was estimated at ~ 10% of the ionization due to the nuclear shower. Orig. art. has: 2 figures and 3 formulas. /JPRS: 39,658/

Card 1/1

L 27897-66 EWT(m)/FCC/T IJP(c)

ACC NR: AP5024642 SOURCE CODE: UR/0048/65/029/009/1719/1721

AUTHOR: Babayev, M.K.; Denikayev, R.Z.; Yemel'yanov, Yu. A.; Zhukov, Ye. I.; Lukin, Yu. T.; Murzin, V.S.; Khomenko, O.S.

14
B

ORG: none

TITLE: Fluctuation in the number of particles in an electromagnetic shower at 110 BeV /Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/ 19

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 9, 1965, 1719-1721

TOPIC TAGS: secondary cosmic ray, cosmic ray shower, electron, photon, iron

ABSTRACT: Electron-photon showers were investigated in an ionization calorimeter consisting of the following components in order from the top: 13 cm C, 3 cm Fe, 8 trays of ionization chambers each followed by 5 cm Fe, 2 trays of chambers with no absorber between, 1 cm Fe, 160 g/cm^2 C, 3 cm Pb, and two trays of chambers separated and followed by 2 cm Pb. Showers initiated by cosmic ray particles were regarded as electron-photon showers if they produced ionization in at least one of the two uppermost trays and no ionization in the two trays beneath the large carbon absorber. Of 334 electron-photon showers thus identified, 152 had energies between 100 and 200 BeV. The ionization versus depth curves for these showers were normalized to a primary energy of 110

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L 27897-66

ACC NR: AP5024642

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BeV and averaged, and the average curve was compared with theoretical curves calculated for different assumed values of the radiation length in iron. Good agreement was obtained with the curve based on a radiation length of 12.6 g/cm^2. This value of the radiation length in iron was confirmed by comparing the observed depth of maximum shower development with calculated values. The fluctuation (ratio of the mean square to the square of the mean) in the number of particles in the showers as a function of depth was compared with the calculated curve of N.M.Gerasimova (Zh. eksperim. i teor. fiz., 43, 500 (1962); 44, 240 (1963)). Good agreement was found at depths less than 23 radiation units, but at greater depths the observed fluctuations were much less than the calculated ones. In conclusion, the authors express their gratitude to Zh.S. Takibayev for valuable discussions. Orig. art. has: 1 formula, 3 figures, and 1 table.

SUB CODE: NP/ SUBM DATE: 00/ ORIG REF: 004/ OTH REF: 000

Card 2/2

KHOMENKO, G.S.

2

H.6000

S/058/62/000/003/033/092
A061/A101

AUTHORS: Kahskarov, L. L., Ivanenko, V. M., Cherdyntsev, V. V., Mozhayeva, V. G., Nurgozhin, N. N., Khomenko, G. S., Gafurov, V. G.

TITLE: Non-conservation of parity in nuclear fission by cosmic ray μ-mesons

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1962, 50, abstract 3B415 ("Sb. nauchn. rabot Kafedry optiki i Kafedy eksperim. fiz. Kazakhsk. un-t.", 1960, no. 2, 43 - 57)

TEXT: A device for measuring the spatially asymmetric departure of neutrons emitted when slow cosmic ray μ^--mesons are captured by atomic nuclei is described. Provisional results are presented.

JC

[Abstracter's note: Complete translation]

Card 1/1

BABAYEV, M.K.; DENIKAYEV, R.Z.; YEMEL'YANOV, Yu.A.; ZHUKOV, Ye.I.; LUKIN, Yu.T.; MURZIN, V.S.; KHOMENKO, G.S.

Fluctuations in the number of particles in an electromagnetic shower at an energy of $1.1 \cdot 10^{11}$ ev. Izv. AN SSSR. Ser. fiz. 29 no.9:1719-1721 S '65. (MIRA 18:9)

L 33335-65 EEC(b)-2/EWA(h)/EWP(j)/EWA(c)/EWT(l)/EWT(m)/EWP(b)/T/EWP(t) Pc-4/
Pz-6/Peb IJP(c) AT/RM/JD
ACCESSION NR: AT5005114 S/2601/64/000/019/0051/0053

AUTHOR: Mil'man, Yu. V.; Trefilov, V. I.; Khomenko, G. Ye.

53
53
B

TITLE: The electromechanical effect in covalent crystals as a function of temperature

21

SOURCE: AN UkrSSR. Institut metallofiziki. Sbornik nauchnykh trudov, no. 19, 1964. Voprosy fiziki metallov i metallovedeniya (Problems in the physics of metals and physical metallurgy), 51-53

TOPIC TAGS: indium antimonide, silicon, germanium, electromechanical effect, semiconductor

21 27 27 21 27

ABSTRACT: The electromechanical effect discovered by Westbrook and Gilman consists of a sharp drop in the microhardness of several crystals with covalent bonds (Si, Ge, InSb, etc.) when an electric current is passed through the specimen during measurement. In many cases, this drop in hardness amounts to 50-60% independently of the conductivity type of the crystal (n- or p- type). The electromechanical effect increases with an increase in the current density j, but reaches saturation at some point, e.g. the saturation point for Ge is 100 a/m^2. This is a surface

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L 33335-65
ACCESSION NR: AT5005114

effect, acting only at distances of 2-3 μ from the surface. It has been established that passing a current through the specimen generates the same effects as are observed when it is illuminated by light of a definite wavelength. The authors of this article had previously studied the effect of temperature on the microhardness of Si, Ge and InSb in a wide temperature range as well as the movement of dislocations at various temperatures in these crystals. It was shown that below some temperature T_{cr} the hardness is weakly dependent on the temperature and that the dislocations are nearly stationary. When the temperature is raised above T_{cr}, the hardness falls sharply while the rate of motion of the dislocations increases. For all crystals studied, $T_{cr} \approx 0.4\ T_m$ where T_m is the melting point in °K. A comparison of these results with the data on the relationship between temperature and the electromechanical effect obtained by Westbrook and Gilman (J. H. Westbrook, J. J. Gilman, Journ. Appl. Phys., 1962, 33, 7, 2360) provided a basis for assuming that the electromechanical effect takes place only at temperatures below T_{cr}. In order to verify this hypothesis, the electromechanical effect in an InSb monocrystal was studied since its T_{cr} lies in the room temperature range and it lends itself most easily to testing above and below T_{cr}. The results are presented in graphic form. It is found that the electromechanical effect takes place only below T_{cr}, the effect being greater the lower the temperature. At temperatures above T_{cr}, where

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L 33335-65

ACCESSION NR: AT5005114

there is considerable dislocation mobility, there is no electromechanical effect. Thus this effect is observed in covalent crystals only when the dislocations in these crystals are "frozen." Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 08Jul63 ENCL: 00 SUB CODE: SS

NO REF SOV: 003 OTHER: 002

Card 3/3

AUTHOR:	Khomenko, I.A., Foreman	91-58-5-25/35

TITLE: Soldering of Wires in Rooms Where the Danger of Explosion and Fire is Great (Payka provodov vo vzryvoopasnykh i pozharoopasnykh pomeshcheniyakh)

PERIODICAL: Energetik, 1958, Nr 5, pp 26-27 (USSR)

ABSTRACT: Wiring in rooms where explosion and fire danger is great must be carefully soldered to avoid the formation of sparks. Electric soldering cannot be used in these rooms. An apparatus is proposed which avoids such danger. A special dish is filled with molten tin. The ends of the wires are carefully cleaned and then put into the liquid tin. Around the dish a heating element is wound which is made from nickel-chromium wire, type Kh20N80 of 1.2 mm in diameter. The melting of the tin is carried out in other rooms. The tin dish is insulated.
There is 1 figure.

AVAILABLE: Library of Congress

Card 1/1 1. Soldering - Hazards

KHOMENKO, Ivan Andreyevich; DOLOMINO, N., red.; POLYAKOV, I., red.;
ISUPOVA, N., tekhn. red.

[Making every minute count]Dorozha kazhdoi minutoi. Simferopol', Krymizdat, 1961. 29 p. (MIRA 15:12)

1. Direktor Simferopol'skogo kozhevenno-obuvnogo kombinata im. F.Ye.Dzerzhinskogo (for Khomenko).
(Simferopol'--Shoe industry--Labor productivity)

KHOMENKO, I.I.

Alfalfa

Some questions on flowering and pollinization of alfalfa. Sel. i sem 19 No.4, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

KHOMENKO, I.K.

Case of perforation of gastric ulcer into the pericardium.
Khirurgiia 37 no.1:127 Ja '61. (MIRA 14:2)

1. Iz Ovruchskoy rayonnoy bol'nitsy Zhitomirskoy oblasti.
(PEPTIC ULCER) (PERICARDIUM--WOUNDS AND INJURIES)

KHOMENKO, I. P.

Desmostylus sp. from the tertiary strata on Sakhalin. Vestn. geol. kom. Vol. 11 No. 3, 1927

So: Trudy Arkticheskogo Nauchno-Issledovatel'skogo Instituta, GUSMP, Council of Ministers, Vol. 201, 1948

KHOMENKO, I.V.

Deep subsurface tillage in the Crimea. Zemledelie 6 no.7:21-26 Jl '58. (MIRA 11:6)

1. Krymskaya gosudarstvennaya sel'skokhozyaystvennaya opytnaya stantsiya.

(Crimea--Plowing)

KHOMENKO, I.V., inzh.-elektrik

Lower the cost of electric power supplied by rural power stations.
Mekh. sil'. hosp. 11 no.11:18-20 N '60. (MIRA 13:11)
(Electric utilities—Costs)

25(1) SOV/125-59-12-9/18

AUTHORS: Moravskiy, V. E. and Khomenko, I. Z.

TITLE: Capacitor Shock Welding of Watch Parts

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 12, pp 65-72 (USSR)

ABSTRACT: Detailed information is given on a new process and welding device developed for attaching pins to the dials of watches made by Soviet watch factories (figure 1). The new method eliminates the conventional complex and slow soldering process. The special welding head developed by the Electrotechnical Institute of the AS UkrSSR for the new process is described and shown (figure 4). The circuit of the "TKM-4" welding machine was redesigned, as illustrated in the circuit diagram (figure 2). The welding is done by a "shock" discharge of capacitors through a transformer. The discharge is aperiodical, and a 0.8-1 ohm resistance is placed in the discharge circuit. The welding is instantaneous and accompanied by a slight click. The stability of the process is high; the welded joint is clean and requires no machining (figure 5). The

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SOV/125-59-12-9/18

Capacitor Shock Welding of Watch Parts

first experimental "shock" welder has been working at a watch factory since the beginning of 1959. There are 4 photographs, 2 tables , 3 diagrams, and 7 Soviet references.

ASSOCIATION: Institut elektrotekhniki AN UkrSSR (Electrotechnical Institute of the AS UkrSSR).

SUBMITTED: July 17, 1959.

Card 2/2

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S/135/60/000/009/009/015
A006/A002

AUTHORS: Moravskiy, V. E., Candidate of Technical Sciences, Khomenko, I. Z., Engineer, Svechnikov, S. V., Candidate of Technical Sciences

TITLE: A Multi-Purpose Seam Capacitor ШКМ-3 (ShKM-3) Machine for Welding Thin Metal

14.

PERIODICAL: Svarochnoye proizvodstvo, 1960, No. 9, pp. 28-30

TEXT: The authors developed and brought into use a seam capacitor ShKM-3 machine for welding 0.5 - 0.6 mm thick ferrous and non-ferrous metals. Engineers G. A. Belyakovich, S. I. Semergayev and A. G. Smagliy participated in the work. The main advantages of the machine are: a sufficiently accurate dosage of energy in welding the spots, producing resistant and tight seams, and the wide-range control of the welding conditions. This is obtained by synchronizing the control and the circuit voltage, required for an accurate consecutive charge and discharge of capacitance. The synchronization is obtained by the controlled operation of trigger valves forming with a stage the amplifier control system. Each trigger has two equilibrium states operated by triggering and cutting-off the valves. Disturbed syncronization affects the regular welding conditions.

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S/135/60/000/009/009/015
A006/A002

A Multi-Purpose Seam Capacitor **ШКМ**-3 (ShKM-3) Machine for Welding Thin Metal

A preliminary amplifying stage is connected to the circuit to raise the stability of the directing part of the system between the amplifier and the trigger cells. The extinction of the back current pulse in the initial coil of the welding transformer is performed by a shunting valva. Seam welding can be performed at a frequency of 50; 25; 12.5 and 6.25 cycles. The ShKM-3 machine permits the production of transverse and longitudinal seams. The transition from welding longitudinal to transverse seams is obtained by replacing the upper head and lower arm of the machine. The technical characteristics of the machine are given and its operation is described. Approximate welding conditions are given in a table. There are 1 table and 3 figures.

ASSOCIATION: Institut elektrotekhniki AN USSR (Institute of Electrical Engineering AS UkrSSR) Moravskiy, V. E. and Khomenko, I. Z., Kiyevskiy politekhnicheskiy institut (Kiyev Polytechnic Institute) Svechnikov, S. V.

KHRENOV, K.K., akademik; KHOMENKO, I.Z., inzh.

Percussion condenser discharge welding of balls to fountain pen tips. Svar. proizv. no.5:23-25 My '61. (MIRA 14:4)

1. Institut elektrotekhniki AN USSR. 2. Akademiya nauk USSR (for Khremov).

(Electric welding)

SHEKHTER, S.Ya.; REZNITSKIY, A.M.; PIKULIN, S.A.; KHOMENKO, K.M.

Automatic welding of oversize, steel pouring ladles. Avtom.svar. 18 no.1:59-60 Ja '65. (MIRA 18:3)

1. Kommunarskiy metallurgicheskiy zavod (for Shekhter, Reznitskiy, Pikulin). 2. Institut elektrosvarki im. Ye.O.Patona AN UkrSSR (for Khomenko).

KHOMENKO, K.S.

Nitriding of Austenitic Steels. K. S. Khomenko. (*Vestnik Mashinostroeniya*, 1952, 32, (3), 71–72). The influence of surface treatment, type of furnace, ammonia concentration and heating rate on the nitriding of specimens of steels, 1KH18N9T (0·1% C, 18% Cr, 9% Ni, plus titanium) and 4KH14N14V2M (0·4% C, 14% Cr, 14% Ni, 2% W, plus molybdenum) was investigated. On the basis of experimental data the nitriding procedure giving best results is recommended.—V. J.

KHOMENKO, K.Ye. [Khomenko, K.IE.]

Study of the personality of pupils and the assembling of psychological characteristics. Nauk. zap. Nauk.-dosl. inst. psykhol. 11: 271-273 '59. (MIRA 13:11)

1. Pedagogicheskiy institut im. G.S.Skovorody, Khar'kov.
(Educational psychology)

29687
S/181/61/003/010/009/036
B102/B108

24.7500 (1144,1454)

AUTHORS: Kosenko, V. Ye., and Khomenko, L. A.

TITLE: Diffusion of silver into a germanium surface

PERIODICAL: Fizika tverdogo tela, v. 3, no. 10, 1961, 2967 - 2972

TEXT: Surface diffusion studies with metals have shown that the surface diffusion coefficients are considerably greater than the volume diffusion coefficients. Since the respective data for semiconductors are not available, the authors investigated the surface diffusion of silver on pure germanium single crystals (resistivity 30 ohm·cm). The {111} faces of Ge plates of 30·20·1.5 mm were ground with a 10-μ abrasive powder and etched for 2 min in boiling perhydrol, or in HNO_3+HF (chemically polished specimens). The latter agent yielded a smoother surface. The silver was deposited from $AgNO_3$ aqueous solution as an 0.2-mm broad stripe or upon the end of the specimen. Diffusion annealing was carried out at 10^{-5} mm Hg. The distribution of the Ag tagged with Ag^{110} was investigated

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S/181/61/003/010/009/036
B102/B108

Diffusion of silver into...

by successive removal of thin layers. Previous investigations had shown that at 700°C the surface diffusion coefficient is by $10 - 10^2$ times greater than the volume diffusion coefficient. The surface diffusion coefficient was calculated from the relation $C(x,t) = \frac{Q}{\sqrt{\pi D t}} \exp(-x^2/4Dt)$. $C(x,t)$ is the concentration at the point x, Q the total quantity of silver, t the time, D the diffusion coefficient. The silver diffusion in two series of specimens (ground and polished) between 200 and 700°C was studied. At 700°C the surface diffusion rate exceeds the volume diffusion rate by 30 times for ground and by 5 times for polished specimens. At 200°, the surface diffusion coefficient amounted to $8.7 \cdot 10^{-8}$ cm^2/sec for a ground, and to $1.6 \cdot 10^{-8}$ cm^2/sec for a polished Ge surface. These values are 10^5 and $2 \cdot 10^4$ times higher than the corresponding values of the volume diffusion coefficients. The temperature dependence of the surface diffusion coefficient is given by $D = D_0 \exp(-E/kT)$, i.e., $D = 5.4 \cdot 10^{-4} \exp(-0.37/kT)$ for the ground specimens and $D = 9.3 \cdot 10^{-5} \exp(-0.37/kT)$ for the polished ones. The

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S/181/61/003/010/009/036
B102/B108

Diffusion of silver into...

diffusion activation energy, i.e., the diffusion mechanism does not depend on the treatment of the surface. The difference in the D_0-values is due to a difference in the number of surface defects. The surface diffusion coefficient as calculated from the relation $D_s = 1/8t \frac{d}{d(x^2)} \Delta \log C$ agrees with the measured values. A determination of the "surface thickness" δ (a layer which is characterised by high mobility of the impurity atoms or ions) yielded values which were by some orders of magnitude greater than those for metals. The high surface mobility of impurities may be one of the reasons for semiconductor aging and destruction. There are 5 figures and 11 references: 4 Soviet and 7 non-Soviet. The four most recent references to English-language publications read as follows: R. A. Nickerson, E. R. Parker. Trans. Amer. Soc. Met., 42, 376, 1950; W. C. Winegard, B. Chalmers. Cap. J. Phys., 30, 422, 1950; H. Fraunfelder. Helv. Phys. Acta, IV, XXIII, 371, 1950; N. Haskerman, N. H. Simpson. Trans. Farad. Soc., 52, 5, 628, 1956.

Card 3/4

29687
S/181/61/003/010/009/036
B102/B108

Diffusion of silver into...

ASSOCIATION: Institut poluprovodnikov AN USSR Kiyev (Institute of Semiconductors AS UkrSSR, Kiyev)

SUBMITTED: April 17, 1961

ACCESSION NR: AT4045013 S/0000/64/000/000/0188/0192

AUTHOR: Kosenko, V. Ye.; L. A. Khomenko

TITLE: Diffusion of silver at germanium surfaces

SOURCE: Soveshchaniye po probleme Izpol'zovaniye atomnoy energii. Kiev, 1961. Radiatsionnaya avtomatika, izotopy* i yaderny*ye izlucheniya v nauke i tekhnike (Radiation automation control systems, isotopes, and nuclear radiation in science and technology); doklady* soveshchaniya. Kiev, Izd-vo AN UkrSSR, 1964, 188-192

TOPIC TAGS: silver, germanium, silver diffusion, surface diffusion coefficient, volume diffusion coefficient, semiconductor, germanium monocrystal

ABSTRACT: Previous studies by various Western authors have shown that for metals the coefficient of surface diffusion is significantly larger then the coefficient of volume diffusion. However, similar studies have not been done on semiconductors, in particular, for germanium. The present paper attempts to fill this gap by studying the diffusion of silver at the surface of monocrystalline germanium. The volume diffusion of silver in germanium was studied by the same authors in earlier papers. In the present paper, films (30 x 20 x 1.5 mm) of pure monocrystalline germanium with a relative resistivity of

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ACCESSION NR: AT4045013

nearly 30 ohm-cm were used. In one series of experiments the film was polished with emery paper and etched for two minutes in boiling perhydrol. In a second series the layer was cleaned in a mixture of HNO_3 and HF (5:3). The diffusion process was studied by the use of a radioactive indicator (Ag 110). The concentration of silver at a point x on the surface is given by

$$C(x,t)=\frac{Q}{\sqrt{\pi Dt}}\exp\left(-\frac{x^2}{4Dt}\right). \qquad (1)$$

where Q is the total amount of the diffusing silver and D is the diffusion coefficient. This formula is a solution of the diffusion equation under certain assumptions. If log C is plotted against x^2 a straight line is obtained. This relationship is confirmed by the experimental data. Similar theoretical and experimental curves for the dependence of the diffusion coefficient on temperature are shown in Fig. 1 of the Enclosure. The formulas obtained for the surface diffusion coefficient also agreed with experimental data. Orig. art. has: 3 figures and 6 formulas.

ASSOCIATION: None

ACCESSION NR: AT4045013

SUBMITTED: 07Jan64

ENCL: 01

SUB CODE: SS

NO REF SOV: 003

OTHER: 007

Card 3/4

ENCLOSURE: 01

ACCESSION NR: AT4045013

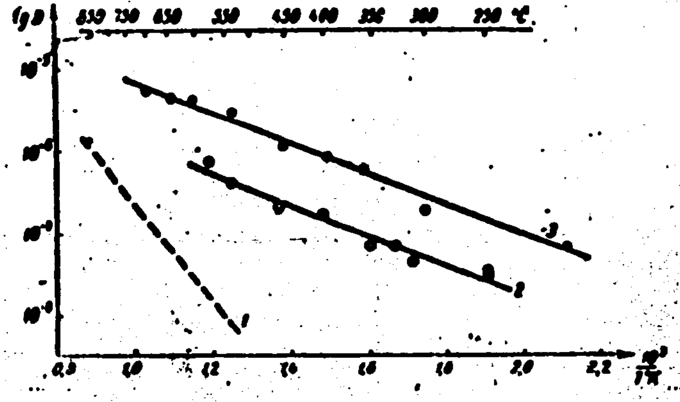

Fig. 1 - Temperature dependence of the diffusion coefficients: 1 - volume diffusion of silver in germanium; 2 - surface diffusion on a chemically polished Ge surface; 3 - surface diffusion on an emery ground Ge surface.

Card 4/4

KHOMENKO, L.A.

Change in the microflora of the dental root canals in periodontitis treated with combinations of proteolytic enzymes and antibiotics. Mikrobiol. zhur. 26 no.5:69-72 '64. (MIRA 18:7)

1. Kiyevskiy meditsinskiy institut.

Khomenko, L. I.

"Treatment of Trophic Ulcers with Ethyl Chloride, Sugar, and Boric Acid. (Experimental and Clinical Observations)." Ukrainian Sci Res Inst of Orthopedics and Traumatology, Kiev, 1952
(Dissertation for the Degree of Candidate of Medical Sciences)

SO: Knizhnaya Letopis', No. 32, 6 Aug 55

KHOMENKO, L.N.

Place a charge on sugar-beet seeds. Sakh.prom.30 no.1:35 Ja '56. (MLRA 9:6)

1.Petrovskiy sakharnyy zavod.
(Sugar beets)

KHOMENKO, L.O.

ZHIDKOV, V.A.; KHOMENKO, L.O.

A case of dislocation in germanium. Ukr.fiz.zhur. 2 no.2:suppl.: 65-67. '57. (MIRA 10:7)

1. Institu fiziki AN URSR i Kiivs'kiy derzhavniy universitet im. T.G. Shevchenka.
(Germanium) (Dislocations in crystals)

KHOMENKO, M.

Titan of thought. Znan. to pratsia no. 2:15 F '61. (MIRA 14:5)
(Bruno, Giordano, 1548-1600)

KHOMENKO, M.S.; SHAPIRO, R.M.

Clinical characteristics of Botkin's disease in the case of parenteral (serum) infection. Zdrav. Kazakh. 21 no.5:60-63 '61. (MIRA 15:2)

1. Iz 7-oy infektsionnoy detskoy bol'nitsy Alma-Aty.
(HEPATITIS, INFECTIOUS)

KHOMENKO, M.S.

Devices for joining a.c. and d.c. districts at the Mariinsk Railroad Station. Elek. i topl. tiaga 5 no.5:4-6 My '61.
(MIRA 14:7)

1. Glavnyy inzh. sluzhby elektrifikatsii i energeticheskogo **khozyaystva Krasnoyarskoy dorogi.**
(Electric railroads—Current supply)

KHOMENKO, M.S.

A.c power supply installations. Zhel.dor.transp. 42 no.9:
61-66 S '60. (MIRA 13:9)

1. Glavnyy inzhener sluzhby elektrifikatsii i energeticheskogo khozyaystva Krasnoyarskoy dorogi.
(Electric railroads--Current supply)

KHOMENKO, M.S., starshiy nauchnyy sotrudnik

TRS-10 mounted fertilizer spreader for orchards. Mekh.sil'. hosp. 10 no.11:22-23 N '59. (MIRA 13:3)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanizatsii sel'skogo khozyaystva.
(Fertilizer spreaders)

KHOMENKO, M.S.

Investigating the technological process of spreading mineral fertilizers with centrifugal apparatus. Trakt. i sel'khozmash. 30 no.9: 31-33 S '60. (MIRA 13:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva.
(Fertilizer spreaders)

KHOMENKO, M. S., Cand Tech Sci, "~~Investigation~~ Study of the technological process ~~for scattering~~ of the spread of mineral fertilizers by means of centrifugal ~~devices~~ apparatus." Kiev-Chelyabinsk, 1960. (Chelyabinsk Inst of Mechanization and Electrification of Agriculture, Ukrainian ~~NII~~ [Sci Res Inst] of Mechanization and Electrification of Agr). (KL, 3-61, 221).

KIRSA, V.I.,; PAVLENKO, V.A.; KHOMENKO, M.S.

New measuring instruments. Mekh. sil'. hosp 12 no.11:27-[illegible]8
N '61. (MIRA 14:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut [redacted] i elektrifikatsii sel'skogo khozyaystva.
(Measuring instruments)

SAUSHEV, V.S.; BYCHKOVA, N.M.; MARKOVSKIY, N.G.; KHOMENKO, M.S.

Temperature of ignition of high-molecular substances and their heat of combustion. Pozh. bezop. no.4:87-90 '65.

(MIRA 19:1)

L 23947-65 EPF(c)/EWT(m)/T Pr-4 WE
ACCESSION NR: AP5002751 S/0308/64/000/003/0015/0015

AUTHOR: Khomenko, N. (Engineer, Mechanic)

TITLE: Addition of VNII NP 111 to protect the fuel system of diesel engines from corrosion

B

SOURCE: Morskoy flot, no. 3, 1964, 15

TOPIC TAGS: diesel engine, corrosion, fuel system / VNII NP 111 additive, L type fuel

11

ABSTRACT: The results of tests performed by the ships of Dal'nevostochnoye parokhodstvo (Far East Shipping) on the properties and uses of such fuel additives as VNII NP-111, developed jointly by VNII NP and TsNIIMF, are reported in this note. The tests on anticorrosion properties of the additive were performed in the laboratory of internal combustion engines at the Vladivostokskoye vyssheye inzhenernoye morskoye uchilishche (Vladivostok Higher School of Maritime Engineering). Fuel "L" (GOST 305-58) was used with the additive concentration of 0.3, 0.5, and 0.8%. It was found that without the additive the fuel operated for 50 hours. The addition of this substance in a concentration of 0.5% increased the operating time by 7 hours, reduced the deposition of impurities and the wear of

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L 23947-65
ACCESSION NR: AP5002751

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the components, and did not cause corrosion of metal. It was also found that this additive produced a more complete combustion of fuel. Orig. art. has: 3 figures.

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ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: FP, PR

NO REF SOV: 000 OTHER: 000

Card 2/2

SIDAKOV, M., polkovnik; KHOMENKO, N., mayor

Training for movement on railroads. Voen. vest. 41 no.9:61-63 S '61. (MIRA 15:1)

(Military education)

KHOMENKO, N.A.

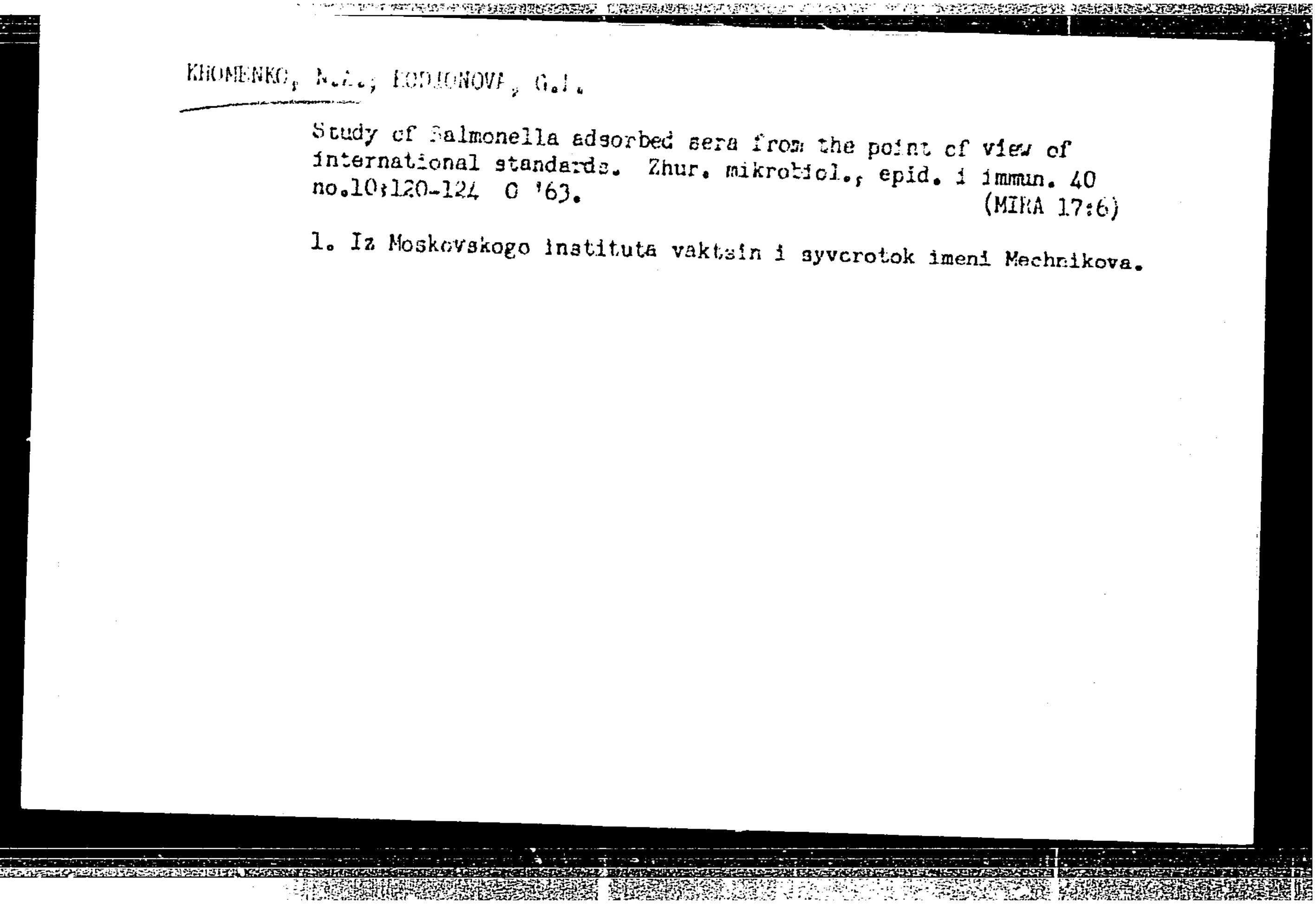
Study of Flexner's type 5 (P119) bacteria strains isolated in the U.S.S.R. Zhur. mikrobiol. epid. i immun. 33 no.10: 96-100 O'62
(MIRA 17:4)

1. Iz Moskovskogo instituta vaktsin i syvorotok imeni Mechnikova.

KHOMENKO, N.A.

Classification of dysentery bacteria. Zhur. mikrobiol., epid. i immun. 40 no.2:3-7 F '63. (MIRA 17:2)

1. Iz Moskovskogo instituta vaktsin i syvorotok imeni Mechnikova.



KHOMENKO, N.A.; RODIONOVA, G.I.

Study of Salmonella adsorbed sera from the point of view of international standards. Zhur. mikrobiol., epid. i immun. 40 no.10:120-124 O '63. (MIRA 17:6)

1. Iz Moskovskogo instituta vaktsin i syvorotok imeni Mechnikova.

KHOMENKO, N.A.; OL'SHEVSKAYA, T.R.

Increase of the specificity of fluorescent globulins for the direct method of staining Shigella. Zhur. mikrobiol., epid. i immun. 42 no.7:33-36 Jl '65. (MIRA 18:11)

1. Moskovskiy institut vaktsin i syvorotok imeni I.I. Mechnikova.

ACC NR: AP6020673 SOURCE CODE: UR/0016/66/000/006/0003/0008

AUTHOR: Khomenko, N. A.; Ol'shevskaya, T. R.; Dovzhik, R. M.; Kiseleva, B. S.

ORG: Moscow Vaccine and Sera Institute (Moskovskiy institut vaktsin i syvorotok im. Mechnikova); Sanitary-Epidemiological Station of the Lenin Region of Moscow (Sanitarno-epidemiologicheskaya stantsiya Leninskogo rayona Moskvy

TITLE: Serological properties of Flexner bacilli isolated in the Soviet Union

SOURCE: Zh mikrobiol, epidemiol i immunobiol no. 6, 1966, 3-8

TOPIC TAGS: human disease, ~~diagnosis of disease,~~ serology, serotyping, serological property, flexner bacillus, Shigella flexneri, clinical method, biological classification, SERUM, MICROBIOLOGY, BACTERIA

ABSTRACT:

Various clinical serological methods were employed in the serotyping of 774 Flexner cultures obtained from all parts of the Soviet Union. All 5 *Sh. flexneri* serotypes and their corresponding subtypes as well as x and y variants were included in these cultures. Rare types and atypical types are being studied further. Results of this experiment suggest the

Card 1/2 UDC: 576.851.49.077.3

ACC NR: AP6020673

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220005-1

following amendments to the Shigella classification, which were sent to the International Nomenclature Committee:

1. Add 2 subtypes to Flexner type 5, 5a - antigenic formula v: 3, 4
   5b - antigenic formula v: 7, 8
2. Change subtype 5x- to 5a and 5x+ to 5b.

[W.A. 50; CBE No. 10]

SUB CODE: 06/ SUBM DATE: 06May65/ ORIG REF: 006/ OTH REF: 006/

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KHOMENKO, N.M.

Lithology of the Yergeni formation in the Stalingrad region of the
Volga Valley. Trudy VGU 42 no.4:87-89 '55. (MIRA 11:6)
(Stalingrad Province--Petrology)